REMARKS

I. Amendment to the Claims

Upon entry of the foregoing amendment, 5 claims are pending in the application. Of the pending claims, 3 claims are independent.

II. Rejections under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 3-5 under 35 U.S.C. §103(a) as being unpatentable over North et al. (U.S. Pat. No. 6,386,358).

With respect to North, et al., the Examiner contends that the interactions of the inner threads of the cap 20 and the outer threads of the neck 22, being shown in infinitely close proximity in Figs. 4-6, form a liquid-tight seal that is telescopically extendable. However, Applicant respectfully asserts that the many cutaway side view diagrams of North et al. (e.g. Figs. 4-6) showing the combination of the inner threads of the cap 20 and the neck 22 as a single zigzag line is obviously done for the sake of simplicity. In the Figures of North et al., there has been no attempt to depict the inner threads and the outer threads as separate entities. Accordingly, it appears clear that this was not meant to be a literal depiction of the threads but rather a simplified diagram. Indeed, in Fig. 4 no attempt is made to depict the threads of the bottle neck alone (the lower threads of neck 22 in Fig. 4) differently than the places where the threads of the neck 22 and the cap 20 interact (the upper threads of Fig. 4) – in both cases the threads are shown as a single line of uniform thickness. Thus, Applicant respectfully contends that the simplified diagrams of North et al. may not be relied upon as a basis for rejection of

claims 3-5 because no inner and outer threads are actually shown or described in the North et al. reference.

Moreover, further evidence that the threaded cap is not a liquid-tight seal is found throughout the text of North et al. In column 4 beginning at line 34, there is described a variation on the first embodiment wherein tablets are stored in the cap and a partition is sealingly inserted into the cap. It is noted, however, at column 4, lines 36-40, that this embodiment is less desirable than the previously described embodiment wherein the seal 24 is applied directly to the top of the bottle neck 24 (see Fig. 1), because when the pills are sealed into the cap the liquid will leak out of the bottle through the threads. That is, not only does the partition 24 serve to keep the pills dry, "the partition 24 acts ... to prevent leakage of the water 14 during transportation of the package 10 ... ." (Col. 4, lines 37-39). The only reason North et al. would raise this concern is if the threaded connection between the cap and the neck of the bottle were not a liquid-tight seal.

It is implied in North et al. that the first embodiment (Figs. 1-3) and the second embodiment (Figs. 4-8) are largely similar, with the discussion of the second embodiment focusing on the similarities and differences between the two embodiments in the text in col. 4, line 59 through col. 5, line 25. As seen in Figs. 1-8 the two embodiments appear to be similar and thus the conclusion reached with regard to the lack of a liquid-tight seal at the interface of the cap and the neck in the first embodiment in the text also applies to the second embodiment of Figs. 4-8.

Further evidence that the interface between the inner and outer threads is not a liquid-tight seal comes from the fifth embodiment (col. 6, lines 30-55). In the fifth embodiment, which

is depicted in Figs. 12-15, a self-contained tablet pack 66 consists of a pill sealed between a plastic sheet 68 and a foil sheet 70, with the pill thus being in a water-tight and waterproof enclosure. Despite the pill being present in a waterproof package and despite the interaction between the inner threads of the cap 62 and the outer threads of the neck (Fig. 12), North et al. also provide for a way to seal the reservoir against leakage (col. 6, lines 41-47). North et al. suggest that the plastic sheet 70, which forms part of the tablet pack 66, may also act as a seal for the reservoir "so that the liquid 14 contained therein does not leak out." (Col. 6, lines 43-44) Alternatively North et al. suggest that a separate annular seal may be provided to prevent leakage of liquid from the fluid reservoir. Since in this embodiment the pill is already present in a water-tight tablet pack 66, the only reason North et al. would provide for an additional seal between the cap and the neck is because the threaded connection is not a liquid-tight seal.

It is also evident from the text of North et al. that the liquid-tight seal is not formed by the threads but rather by the interaction of the top of the bottle neck with the inside top of the cap, with this interaction being made tighter by the use of a plastic disc or annular ring between the neck and the cap (col. 6, lines 41-47; Fig. 12).

Again, there is no reason to suppose that the threaded connection of cap with the neck in the first or fifth embodiments, which North et al. clearly indicate do not form a liquid-tight seal, is any different from the threaded connection of cap with the neck in the second embodiment of Figs. 4-8. Thus, it is respectfully asserted that the Examiner's contention that the threaded interface between the cap and the bottle neck forms a liquid-tight seal as is claimed in claims 3-5 is erroneous, and respectfully requested that the Examiner's rejection be withdrawn.

Finally, the Examiner's reliance on the doctrine of inherency to argue that the intermesh fit of cap and bottle as shown in the figures of North et al. discloses a "substantially liquid-tight seal" is misplaced. The Examiner states that his resort to inherency is supported by the depiction of the threads in the figures as having no gap between them. However, as discussed above, this cannot have been intended as a literal depiction of the cap and bottle threads, since there was no attempt to depict the threads in a different manner in places where the threads overlap versus places where the cap or bottle threads are shown by themselves, for example as in Figure 4 of North et al.

The Examiner's main mistake in relying on inherency in this case goes to the very heart of why many screw-top bottle caps are liquid-tight. The liquid tight seal formed between the cap and the bottle is not due to the intermeshing of the threads but rather is due to the interaction of the top edge of the bottle with the inside surface of the top of the cap. Thus the cap forms a liquid-tight seal only if the cap is screwed on tightly. The purpose of the threads is to hold the cap tightly against the top of the bottle. To further promote a liquid-tight seal, the undersides of many caps have additional material, such as a layer of soft rubber, to tighten the interface between the rim of the bottle and the underside of the cap. Anyone who has knocked over a soda bottle whose cap was not screwed on tightly, having the soda leak out between the threads, realizes that the threads alone do not confer a liquid-tight seal on the cap. Indeed, to make a bottle cap with liquid-tight threads would require manufacturing to extremely high tolerances, beyond what is normally achieved for mass-produced consumer items such as the pill bottles shown in North et al.

The Examiner points to Figure 7 of North et al. as further support for the notion that the intermeshed threads of the bottle and cap form a liquid-tight seal, since there is no depiction of liquid leaking between the threads in the drawing. However, it is clear in Figure 7 that the cap is screwed as far onto the bottle as possible, thereby conferring a liquid-tight seal between the top edge or rim of the bottle and the underside of the cap, not via the intermeshed threads. Indeed, this requirement for the cap to be tightly screwed onto the bottle to achieve a "substantially liquid-tight seal" indicates that North et al. teaches away from the present claims. Claims 3 and 4 recite that the "friction-fitting, substantially liquid-tight seal is formed" "upon telescopic extension" of the telescoping components. In contrast, North et al. teach to those skilled in the art, namely those who realize that a cap must be screwed on tightly to form a liquid-tight seal with a vessel, that telescopic extension of such components (i.e. unscrewing of the cap) destroys the liquid-tight seal. Thus North et al. in fact teaches away from the notion, expressed in claims 3 and 4, that telescopic extension of two telescoping components creates a liquid-tight seal.

It is respectfully asserted that the Examiner has failed to show that all of the elements of claims 3-5 are properly taught or suggested in the cited references, and that in fact the North et al. reference teaches away from the claims; the Examiner has failed to make a prima facie case for rejection under 35 U.S.C. § 103(a). Accordingly, Applicant respectfully requests that the Examiner withdraw this objection and issue a Notice of Allowance for all of the pending claims.

III. Nonstatutory Double Patenting Rejection

The entry of a Terminal Disclaimer herewith renders this rejection moot.

III. Conclusion

Applicant respectfully submits that independent claims 3-5 are allowable over the prior art of record, including the cited references.

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment is respectfully requested.

Respectfully submitted,

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